

**U.S. Department of the Interior
Bureau of Land Management**

Preliminary Environmental Assessment

DOI-BLM-NV-L030-2010-0038 EA

August 16, 2010

Grazing Permit Renewals
for
Authorization #2703530 and #2703531
on the
Crystal Springs Allotment

Lincoln County, Nevada

U.S. Department of the Interior
Bureau of Land Management
Caliente Field Office
Phone: (775) 726-8100
Fax: (775) 726-8111



1.0 Introduction: Need for Action

This document identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with the proposed term grazing permit renewals for authorizations #2703530 and #2703531 on the Crystal Springs Allotment (#21025).

This land based allotment is located within Lincoln County in the south-central portion of the Ely District BLM, approximately 45 miles west of Caliente, Nevada; and approximately one mile west of Hiko, Nevada (Appendix I, Maps #1 and #2). It encompasses approximately 7,596 acres and is located within the White River South Watershed (#160C).

Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA), Wilderness or Wilderness Study Area or within desert tortoise habitat. There are no known riparian areas located within the allotment.

General Allotment Location:

T.4 S., R.59 E., MDBM, many sections
T.4 S., R.60 E., MDBM, many sections
T.5 S., R.59 E., MDBM, many sections
T.5 S., R.60 E., MDBM, many sections

1.01 Background

Current management practices are a reflection of Best Management Practices (BMPs) as coordinated between the permittee and the appropriate BLM Range Management Specialist.

Following the Crystal Springs Allotment permit renewal internal and external scoping process, allotment data collection and analysis, and the completion of the Standard Determination Document the permittee of record – Authorization #2705089 – decided to transfer all of their grazing privileges (437 AUMs) on the Crystal Springs Allotment to Authorization #2703530. Authorization #2703530 then decided to immediately transfer a portion of these grazing privileges to Authorization #2703531. The transfer of grazing privileges from Authorization #2705089 to Authorization #2703530 was completed on August 2, 2010. The transfer of grazing privileges from Authorization #2703530 to Authorization #2703531 was completed on August 3, 2010.

1.1 Introduction of the Proposed Action.

The BLM proposes to fully process and issue new term grazing permits, for Authorizations #2703530 and #2703531, which would authorize livestock grazing on the Crystal Springs Allotment.

Changes to grazing management are recommended which would establish an Allowable Use Level (AUL) along with other Best Management Practices (BMPs) within the allotment. Standards and Guidelines for Grazing Administration were developed by the Mojave-Southern

Great Basin Resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997. The AUL and BMPs would assist in achieving or maintaining these Standards.

Monitoring data were collected and analyzed and an assessment of the rangeland health for the Crystal Springs Allotment was completed in 2010, during the permit renewal process, through a Standards Determination Document (SDD) (Appendix II).

A summary of this information follows:

Table 1.1-1. Summary of Assessment of the Mojave-Southern Great Basin Area Standards for the Crystal Springs Allotment.

Standard	Status
1. Soils	Achieved
2. Riparian and Wetland Sites Standard	Upland portion – Achieved Riparian Portion – Not Applicable
3. Habitat and Biota Standard	Achieved

1.2 Need for the Proposed Action.

The need for the proposal is to provide for legitimate multiple uses of the public lands by renewing the term grazing permits, for Authorizations #2703530 and #2703531, on the Crystal Springs Allotment; and to include in these permits new terms and conditions and Best Management Practices for grazing use that continue to conform to guidelines and achieve standards for Nevada’s Mojave-Southern Great Basin in accordance with all applicable laws, regulations, and policies in accordance with Title 43 CFR 4130.2(a) which states: “Grazing permits or leases authorize use on the public lands and other BLM-administered lands that are designated in land use plans as available for livestock grazing.”

The need for the proposal is also to authorize grazing use in a manner that satisfies the Federal Land Policy and Management Act (FLPMA) while being consistent with multiple use, sustained yield and the Standards for Rangeland Health; and to introduce management practices, along with specific terms and conditions, directed toward the continued achievement of the Standards and Guidelines for Grazing Administration.

1.3 Objectives for the Proposed Action.

- To renew the grazing term permits for Authorizations #2703530 and #2703531 and authorize grazing in accordance with applicable laws, regulations, and land use plans (LUP) on approximately 7,596 acres of public land.
- To improve/maintain vegetative health and growth conditions on the allotment while continuing to meet the Standards and Guidelines for rangeland health as approved and published by Mojave-Southern Great Basin RAC.

1.4 Relationship to Planning

The proposed action is in conformance with the Ely District Record of Decision and Approved Resource Management Plan signed August 20, 2008, which states, “Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health.” In addition, “To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p. 85-86).”

Management Action LG-1 states, “Make approximately 11,246,900 acres and 545,267 animal unit months available for livestock grazing on a long-term basis.”

Management Action LG-5 states, “Maintain the current grazing preference, season-of-use, and kind of livestock until the allotments that have not been evaluated for meeting or making progress toward meeting the standards or are in conformance with the policies are evaluated. Depending on the results of the standards assessment, maintain or modify grazing preference, seasons-of-use, kind of livestock and grazing management practices to achieve the standards for rangeland health. Changes, such as improved livestock management, new range improvement projects, and changes in the amount and kinds of forage permanently available for livestock use, can lead to changes in preference, authorized season-of-use, or kind of livestock. Ensure changes continue to meet the RMP goals and objectives, including the standards for rangeland health.”

1.4.1 Relationship to Other Plans

The proposed action is consistent with the following Federal, State, and local plans to the maximum extent possible.

- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (1999).
- Mojave-Southern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (12 February 1997).
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186 (1/11/01).

1.4.2 Tiering

This document is tiered to the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007).

1.5 Relevant Issues and Internal Scoping/Public Scoping.

On January 8, 2010, a letter was sent to local Native American tribes requesting comments by February 8, 2010 regarding the permit renewal process for Authorization #2705089 on the Crystal Springs Allotment. No comments were received.

On April 19, 2010, the permittee of record (Authorization #2705089) was sent a letter informing them of the proposed term permit renewal process scheduled for their allotment during 2010. No comments were received.

The Ely District Office mails an annual Consultation, Cooperation, and Coordination (CCC) Letter to individuals and organizations who have expressed an interest in rangeland management related actions. Those receiving the annual CCC letter have the opportunity to request, from the District Office, more information regarding specific actions (e.g., term permit renewals).

On December 22, 2009, the Ely BLM annual CCC letter was mailed which notified interested publics of the livestock grazing term permit renewals scheduled for 2010. The letter included Authorization #2705089 on the Crystal Springs Allotment for which no public scoping comments were received.

On April 7, 2010, the Nevada Department of Wildlife was sent a copy of the proposed action via ftp. No comments were received.

On April 20, 2010, an internal meeting was held in coordination between the Caliente Field Office the Ely BLM District Office. The term permit renewal proposal, for Authorization #2705089, was presented and scoped by resource specialists to identify any relevant issues. No potential issues were identified.

On April 26, 2010, the proposal to fully process the term permit, for Authorization 2705089, was posted on the Ely BLM internet site (http://www.blm.gov/nv/st/en/fo/ely_field_office.html). No comments were received.

This EA will be posted for a 15 day public review and comment period on the Ely BLM external website. A hard copy will also be mailed to those interested publics who have requested it and who have expressed an interest in range management actions on the Crystal Springs Allotment. Changes in the EA, based upon public input, will be made as appropriate.

Interested publics will be notified, again, by mail or email when the Proposed Decision Record and Finding of No Significant Impact (DR/FONSI) is signed. Before including addresses, phone numbers, email addresses or other personal identifying information in comments, you should be aware that the entire comment – including personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. These documents will also be mailed to interested publics that request a hard copy. The signed DR/FONSI initiates a 15 day protest period followed by a 30 day appeal period.

2.0 Alternatives Including the Proposed Action

2.1 Proposed Action

The Bureau of Land Management (BLM) Caliente Field Office proposes to renew the term grazing permits for Authorization #2703530 and #2703531 on the Crystal Springs Allotment (#21025).

The Proposed Action is to maintain the Active Use of 292 AUMs for Authorization #2703530 and 145 AUMs for Authorization #2703531, for a total of 437 AUMs, in accordance with the current term permits.

Table 1 in Appendix B of the SDD illustrates annual livestock grazing use on the Crystal Springs Allotment - as AUMs licensed and percent of Active Use by grazing year - from March 1, 1995 through February 28, 2010 (15 years). It also shows the Total Active Use on the allotment of 437 AUMs. As the table illustrates, the licensed annual use on the allotment, during 13 out of the past 15 years, has frequently been significantly below the combined Total Active AUMs of both permits.

Consequently, the stocking rate formula (BLM Technical Reference 4400-7, Appendix 2, pages 54-56) was used to determine if utilizing 100% of the combined Total Active Use (437 AUMs) of both current term permits could potentially result in grazing use which would exceed the moderate use level (45% utilization) at the key area. Appendix C of the SDD displays the stocking rate calculations, based on utilization data collected at KA-1 during 2008 and 2009, using a 45% desirable utilization level. Stocking rate calculations indicated that employing the Total Active AUMs of both permits would not result in grazing use which would exceed a moderate utilization level at the key area. However, the authorization of 437 AUMs, during any given year, would be based on annual forage availability; and the terms and conditions and the Best Management Practices included in the new term permits which, in part, address utilization levels, periods of use and placement of salt and mineral supplements.

The Proposed Action would also include changing the Season of Use from 8/1 – 5/31 to 10/1 – 3/31, so that grazing neither occurs during most of the critical growing period for cool season plants nor during a portion of the critical growing period for warm season plants. This would favor plant growth and seed set requirements in both, warm season and cool season grasses. It would also allow the potential for grazed cool season plants, which may have begun some spring growth, to continue growth which would aid in allowing such plants: to develop above ground biomass to protect soils and provide desirable perennial cover for wildlife; to contribute to litter cover; and to continue to develop root masses which would lend itself to improved carbohydrate storage for vigor and reproduction.

The Proposed Action would also establish AULs and other BMPs within the allotment. This would aid in maintaining achievement of the Mojave-Southern Great Basin Standards. No other changes to the permits would be made.

2.1.1 Current Permits

The current term grazing permits, for the Authorizations #2703530 and #2703531, have been issued for the period 8/20/2010 – 8/19/2013. Tables 2.1.1-1 and 2.1.1-2, below, display the current term grazing permits.

Table 2.1.1-1. Current Term Grazing Permit for Authorization #2703530 on the Crystal Springs Allotment.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number	* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Crystal Springs	21025	29	C	8/01	5/31	100	292	0	292

* This number is approximate

** This is for billing purposes only.

Table 2.1.1-2. Current Term Grazing Permit for Authorization #2703531 on the Crystal Springs Allotment.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number	* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Crystal Springs	21025	14	C	8/01	5/31	100	145	0	145

* This number is approximate

** This is for billing purposes only.

2.1.2 Proposed Term Permits

Tables 2.1.2-1 and 2.1.2-2 below, display the proposed term grazing permits for Authorizations #2703530 and #2703531.

Table 2.1.2-1. Proposed Term Grazing Permit for Authorization #2703530 on the Crystal Springs Allotment.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number	* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Crystal Springs	21025	48	C	10/01	3/31	100	292	0	292

* This number is approximate

** This is for billing purposes only

Table 2.1.2-2. Proposed Term Grazing Permit for Authorization #2703531 on the Crystal Springs Allotment.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number	* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Crystal Springs	21025	24	C	10/01	3/31	100	145	0	145

* This number is approximate

** This is for billing purposes only

The new term permits would include terms and conditions which further assist in achieving/maintaining the Standards and Guidelines for Grazing Administration in addition to other pertinent land use objectives for livestock use (Appendix III).

In addition, the following BMPs would be included, as Other Terms and Conditions, in both term grazing permits. Utilization objectives for the allotment are a quantification of the land use plan objectives and would be included as a BMP.

Best Management Practices

The following Best Management Practices would be added to the term grazing permits for Authorizations #2703530 and #2703531:

1. Allowable Use Levels on current year's growth of upland vegetation (grasses, forbs and shrubs) within the Crystal Springs Allotment - during the authorized grazing use period - would not exceed 45%.
2. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.
3. Salt and/or mineral supplements for livestock would be located no closer than 3/4 mile from existing water sources.

In relation to grazing, there would be no additional terms and conditions needed for management practices to conform to guidelines to either make progress toward or to maintain achievement of the Standards for Rangeland Health.

The renewal of the term grazing permits would be for a period of up to 10 years. If grazing privileges are transferred during this ten year period - with no changes to the terms and conditions of the permit in question - the new term permit(s) would be issued for the remainder of the 10 year period.

2.1.3 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment was completed for this project (Appendix IV). The measures listed in the Weed Risk Assessment will be followed, when grazing occurs on the allotment, to minimize the spread of weeds.

2.1.4 Monitoring

The Ely District Approved Resource Management Plan (August 2008) identifies monitoring to include, "Monitoring to assess rangeland health standards will include records of actual livestock use, measurements of forage utilization, ecological site inventory data, cover data, soil mapping, and allotment evaluations or rangeland health assessments. Conditions and trends of resources

affected by livestock grazing will be monitored to support periodic analysis/evaluation, site-specific adjustments of livestock management actions, and term permit renewals” (pg. 88).

2.3 No Action Alternative

The No Action Alternative would reflect the status quo. The term permits would be issued without changes to grazing management or modifications to the terms and conditions of the permits.

The renewal of the term grazing permits would be for a period of up to 10 years. If grazing privileges are transferred during this ten year period - with no changes to the terms and conditions of the permit in question - the new term permit(s) would be issued for the remainder of the 10 year period.

2.4 Alternatives Considered but Eliminated from Further Analysis

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November, 2007) analyzes five alternatives of livestock grazing (p.4.16-1 to 4.16-15.), including a no-grazing alternative (D). No further analysis is necessary in this document.

- The Proposed RMP
- Alternative A, The Continuation of Current Existing (No Action alternative)
- Alternative B, the maintenance and restoration of healthy ecological systems
- Alternative C, commodity production
- Alternative D, conservation alternative (no-grazing alternative)

3.0 Description of the Affected Environment and Associated Environmental Consequences

3.1 Allotment Information

The Crystal Springs Allotment encompasses approximately 7,596 acres. This land based allotment, having only one permittee, is located within Lincoln County in the south-central portion of the Ely District BLM, approximately 45 miles west of Caliente, Nevada; and approximately one mile west of Hiko, Nevada (Appendix I, Map #1). It is located within the White River South Watershed (#160C).

Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA), Wilderness or Wilderness Study Area or within desert tortoise habitat. There are no known riparian areas located within the allotment.

3.2 Resources/Concerns Considered for Analysis - Proposed Action

The following items have been evaluated for the potential for significant impacts to occur, either directly, indirectly, or cumulatively, due to implementation of the proposed action.

Consideration of some of these items is to ensure compliance with laws, statutes or Executive

Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general and to the Ely BLM in particular.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	No	Air quality in the affected area is generally good except for occasional dust storms. The proposed action would contribute to ambient dust in the air due to trailing, but the impact would be temporary and would not approach a level that would exceed any air quality standards. Detailed analysis is not required.
Cultural Resources	No	<p>Impacts from livestock grazing on Cultural Resources are analyzed on page 4.9-5 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007).</p> <p>According to the Ely District Approved Resource Management Plan, August 2008, (RMP) it is the goal of the Ely District to identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations. They are to protect and maintain these cultural resources on BLM-administered land in stable condition. To accomplish this they are to seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration or potential conflict with other resource uses by ensuring that all authorizations for land use and resource use will comply with the National Historic Preservation Act, Section 106. In accordance with this act, “any material remains of past human life or activities which are of archaeological interest” shall be assessed and secured “for the present and future benefits of the American People”. Therefore, all ground disturbing activities related to livestock grazing (such as fence construction, road construction, water developments, etc.) within the allotment(s) associated with these Term Permit(s) will be subject to Section 106 review and, if needed, SHPO consultation as per BLM Nevada’s implementation of the Protocol for cultural resources.</p> <p>Livestock grazing has been an historic use of federal lands, now managed by the Caliente Field Office, since the mid-19th century. The extent of effects from livestock grazing on archeological sites is difficult to determine, since extensive livestock grazing has occurred in this region for over 150 years. Though, it is likely that the majority of the livestock-related impacts on cultural resources occurred prior to the passage of the Taylor Grazing Act in 1934.</p> <p>The BLM conducts field investigations and maintains files of archeological sites on public lands. Analyses of existing documentation indicates that concentrated livestock activities near water sources, along fences, and in areas where livestock seek shelter, could adversely affect cultural resources.</p> <p>The cultural staff will identify cultural properties being impacted by grazing activities to be monitored in order to determine condition, impacts, deterioration, and use of these properties. Site monitoring is conducted by BLM archeologists, law enforcement rangers, and trained site stewards, to identify impacts and evaluate site conditions. As necessary, strategies are developed and implemented in order to reduce threats and resolve conflicts to the property.</p>
Paleontological Resources	No	No currently identified paleontological resources are present in the project area.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Native American Religious Concerns and other concerns	No	<p>Tribal coordination letters were sent out on January 8, 2010 for the 2010 term permit renewals, which included the Crystal Springs Allotment, notifying the tribes of a 30 day comment period. No concerns were identified.</p> <p>Direct impacts and cumulative impacts would not occur, because there were no identified concerns through coordination.</p>
Noxious and Invasive Weed Management	No	<p>Livestock grazing has the potential to spread noxious and invasive weeds.</p> <p>However, the allotment has no mapped weed infestations. The design features of the proposed action in addition to the vigilant practices described in the Noxious Weed Risk Assessment (Appendix IV) will help prevent livestock grazing from spreading noxious and non-native, invasive weeds.</p> <p>No additional analysis is needed.</p>
Vegetative Resources	Yes	<p>Impacts from livestock grazing on Vegetation Resources were analyzed on page 4.5-9 in the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). Beneficial impacts to vegetative resources are consistent with the need and objectives for the proposed action. No further analysis is needed.</p> <p>This resource has been further analyzed in the EA.</p>
Rangeland Standards and Health	Yes	<p>Impacts from livestock grazing on Rangeland Standards and Health are analyzed on pages 4.16-3 through 4.16-4 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). Beneficial impacts to rangeland standards and health are consistent with the need and objectives for the proposed action.</p> <p>Analysis of the proposed action and alternatives is provided in the affected environment and environmental impacts sections.</p>
Forest Health ¹	No	There are no Pinyon-juniper woodlands located on the Crystal Springs Allotment.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes exist on the permit renewal area, nor would any be introduced by the proposed action or alternatives.
Wilderness	No	The allotment is not located within a Wilderness or Wilderness Study Area.
Special Designations other than Designated Wilderness	No	No Special Designations occur within the project area.
Wetlands/Riparian Zones	No	There are no lentic or lotic riparian areas located within the Crystal Springs Allotment.
Water Quality, Drinking/Ground	No	<p>The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) disclosed effects to Water Resources from livestock grazing on page 4.3-5.</p> <p>The proposed action would not affect water quality (surface or groundwater sources) or drinking water in the project area. No surface water in the project area is used as human drinking water sources and no impaired water bodies of the State on Nevada are present in the project area.</p>
Water Resources (Water Rights)	No	The Proposed Action would not affect existing or pending water rights in the project analysis area. All alternatives would not change or recommend changes to State of Nevada permitted uses of water in the project analysis area.
Floodplains	No	No floodplains have been identified by HUD or FEMA within the allotment. Floodplains, as defined in Executive Order 11988, may exist in the area, but

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		would not be affected by the proposed action or alternatives.
Watershed Management	No	<p>The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) disclosed effects to Watershed Management from livestock grazing activities on page 4.19-5. Further changes to livestock management may be recommended as a result of the watershed analysis process.</p> <p>The Proposed Action would not affect Watershed Management in the project analysis area. It would also not affect, or otherwise alter, the physical or biological processes which influence watershed health and function.</p>
Migratory Birds	No	<p>The migratory bird species that likely occur in or near the project area are listed in Appendix V. This list includes BLM Sensitive species.</p> <p>It is anticipated that changes in season of use (eliminating grazing during most of the spring critical growing period for cool season plants and during a portion of the critical growing period for warm season plants) and the establishment of Best Management Practices (including Allowable Use Levels) on the allotment would aid in continuing to achieve the upland Mojave-Southern Great Basin Standards; thereby, maintaining or improving habitat conditions for all migratory birds of concern.</p> <p>There is always a possibility that the nests, and/or developing young, of ground nesting birds during the spring nesting period could be trampled by cattle.</p> <p>The potential of nest trampling, during the months of April and May, would be eliminated under the Proposed Action due to the proposed Season of Use change.</p> <p>Conversely, even at full stocking levels during the proposed grazing season, the potential for nest trampling is anticipated to be remote and upon occurrence, would be limited to an occasional individual or nest. If nests were lost due to trampling, birds would likely re-nest.</p> <p>Grazing would also reduce the height of existing vegetative structure and cover to some degree. However, with the establishment Allowable Use Levels it is anticipated that vegetative structure and cover would be negligibly affected.</p> <p>In view of the aforementioned, it is anticipated that the impacts to migratory bird populations, as a whole, would be negligible; thereby, having no adverse affect.</p>
U.S. Fish and Wildlife Service (USFWS) Listed or proposed for listing Threatened or Endangered Species or critical habitat.*	No	There are no known Threatened or Endangered Species which are listed or are proposed for listing or critical habitat within the Crystal Springs Allotment.
Special Status Plant Species, other than those listed or proposed by the UFWS as Threatened or Endangered	No	There are no BLM Special Status Plant Species known to occur within the Crystal Springs Allotment.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Special Status Animal Species, other than those listed or proposed by the UFWs as Threatened or Endangered	No	There are no BLM Special Status Animal Species known to occur within the Crystal Springs Allotment.
Fish and Wildlife	No	<p>Impacts from livestock grazing on Fish and Wildlife are analyzed on pages 4.6-10 through 4.6-11 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007).</p> <p>However, there are no lentic or lotic riparian areas located within the Crystal Springs Allotment. In addition, no big game habitat is known to occur within the allotment.</p> <p>Grazing would reduce the amount of available forage (grass and forbs); however, compliance with Ely Resource Management Plan standards for utilization percentages ensures that forage is present in the allotment after cattle are removed.</p>
Wild Horses	No	Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA).
Soil Resources	No	<p>The Ely Proposed resource Management Plan/Final Environmental Impact Statement (November 2007) disclosed effects to Soil Resources resulting from livestock grazing actions on page 4.4-4.</p> <p>Soils Resources, regarding soil condition within the project area, were analyzed in the Standard Determination Document. It is expected that the Proposed Action would not lead to measureable effects within the grazing allotment.</p> <p>Therefore, there are no anticipated impacts as a result of the Proposed Action.</p>
Mineral Resources	No	There would be no modifications to mineral resources through the proposed action or alternatives; therefore, no direct or cumulative impacts would occur to minerals.
VRM	No	The proposed action is consistent with the VRM classifications 3 and 4 for the area; therefore no direct or cumulative impacts to visual resources would occur.
Recreation Uses	No	Design features identified in the proposed action would result in negligible impacts to recreational activities
Grazing Uses	Yes	<p>No big game habitat is known to occur within the allotment.</p> <p>Livestock grazing is analyzed in the EA.</p>
Land Uses	No	There would be no modifications to land use authorizations through the proposed action, therefore no impacts would occur. No direct or cumulative impacts would occur to access and land use.
Environmental Justice	No	No environmental justice issues are present at or near the project area. No minority or low income populations would be unduly affected by the proposed action or alternatives.

¹ Healthy Forests Restoration Act projects only

* Consultation required, unless a “not present” or “no effect” finding is made.

The resources, listed within the above table, that are not present within the Crystal Springs Allotment and, therefore, do not require a detailed analysis include: Cultural Resources; Paleontological Resources; Native American Religious Concerns; Noxious and Invasive Weed Management; Forest Health; Wastes-Hazardous or Solid; Wilderness; Special Designations

other than Designated Wilderness; Wetlands/Riparian Zones; Floodplains; Watershed Management; USFWS Listed or proposed for listing Threatened or Endangered Species or critical habitat; Special Status Plant Species-other than those listed or proposed by the FWS as Threatened or Endangered; Special Status Animal Species, other than those listed or proposed by the UFWS as Threatened or Endangered; Fish and Wildlife; Wild Horses; Soil Resources; Mineral Resources; Land Uses and Environmental Justice.

The resources, listed within the above table, that are present within the Crystal Springs Allotment and were assigned a “No” under the “Issue(s) Analyzed” column, because they are negligibly affected by the proposed action, include: Water Quality-Drinking/Ground; Water Resources (Water Rights); Migratory Birds; VRM and Recreation Uses.

The following are the remaining resources, listed within the above table, which are also present within the Crystal Springs Allotment and which were also assigned a “No” under the “Issue(s) Analyzed” column, because they are negligibly affected by the proposed action. An analysis of grazing impacts on these resources may be found in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007), on the noted pages, and include: Air Quality; Cultural Resources (page 4.9-5); Vegetative Resources (page 4.5-9); Rangeland Standards and Health (pages 4.16-3 through 4.16-4); Water Resources (page 4.3-5); Watershed Management (page 4.19-8); Fish and Wildlife (pages 4.6-10 through 4.6-11); Soil Resources (page 4.4-4). Consequently, these resources do not require a further detailed analysis.

However, the following is a detailed analysis regarding Vegetative Resources, Rangeland Standards and Health, and Grazing Uses. These three resources were assigned a “Yes” under the “Issue(s) Analyzed” column in the above table; and have been identified by the BLM interdisciplinary team as resources within the affected environment that merit a detailed analysis.

3.3 Resources/Concerns Analyzed

The resources/concerns analyzed include Vegetative Resources, Rangeland Standards and Health and Grazing Uses.

3.3.1 Vegetative Resources, Rangeland Standards and Health and Grazing Uses

3.3.1.1 Affected Environment

Section 3.1, above, describes some basic information about the Crystal Springs Allotment. The allotment is used mostly for winter and early to mid-spring grazing. Under the Proposed Action, a majority of spring grazing would be eliminated. Plant communities consist of various desert shrubs and grasses. General field observations revealed that, at least, fourteen perennial species of shrubs; five perennial species of grasses; a variety of perennial forb species; and five different species of cacti, which includes an occasional banana yucca and Joshua tree, exist in a patchy network within the allotment. A more detailed list of these species is displayed in the table under Standard 3 of the SDD.

3.3.1.2 Environmental Consequences

Proposed Action

An assessment and evaluation of livestock grazing managements achievement of the standards and conformance to the guidelines (Standards Determination Document or SDD) was completed in conjunction with this project (Appendix II). It showed that the applicable Standards (Standards I and III) were achieved.

However, because licensed annual use on the allotment - during 13 out of the past 15 years - has frequently been significantly below the combined Total Active AUMs of both permits, stocking rate calculations were determined (SDD, Appendix C). The stocking rate calculations indicate that grazing 100% of the current Total Active Use (437 AUMs) would not result in grazing use which would exceed the moderate use level (45%). However, the full authorization of 437 AUMs on the allotment, during any given year, would be based on annual forage availability and the terms and conditions and the Best Management Practices included in the new term permits.

The Proposed Action, therefore, is to maintain the Total Combined Active Use of 437 AUMs (292 AUMs for Authorization #2703530 and 145 AUMs for Authorization #2703531) on the allotment in accordance with the current term permits; while changing the Season of Use, so that grazing neither occurs during most of the critical growing period for cool season plants nor during a portion of the critical growing period for warm season plants.

This would favor plant growth and seed set requirements in both, warm season and cool season grasses. It would also allow the potential for grazed cool season plants, which may have begun some spring growth, to continue growth which would aid in allowing such plants: to develop above ground biomass to protect soils and provide desirable perennial cover for wildlife; to contribute to litter cover; and to continue to develop root masses which would lend itself to improved carbohydrate storage for vigor and reproduction.

It is anticipated, and reasonable to expect, that the applicable Standards would continue to be achieved.

No Action Alternative

All of the mandatory terms and conditions of the current permit, as displayed under section 2.1.1, would remain unchanged. Because the Season of Use would not change, it would annually allow grazing during most of the critical spring growing season for cool season plants; and during a portion of the critical growing season for warm season plants. Consequently, the benefits to plant physiology, as described under 2.1 of the Proposed Action, would be dramatically reduced; thereby, impacting desired forage in a highly negative manner.

Also, under the no action alternative, the terms and conditions and BMPs listed under 2.1.2 in the Proposed Action and in Appendix III of this EA would not be included in the new permit. This would make such management practices difficult to enforce with no recourse regarding the court system.

4.0 Cumulative Impacts

According to page 36 of the 1994 BLM publication *Guidelines for Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values where the incremental impact of the Proposed Action results in a meaningful change in the cumulative effect from other past, present and reasonably foreseeable future actions within the Cumulative Effects Study Area (CESA). The CESA for this project is defined as the White River South Watershed (#160C).

Additionally, the guidance provided in The National BLM NEPA Handbook H-1790-1 (2008), for analyzing cumulative effects issues states, “determine which of the issues identified for analysis may involve a cumulative effect with other past, present, or reasonably foreseeable future actions. If the proposed action and alternatives would have no direct or indirect effects on a resource, you do not need a cumulative effects analysis on that resource” (p.57).

A comprehensive cumulative impacts analysis can be found on pages 4.28-1 through 4.36-1 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007).

The proposed action in conjunction with the past, present and reasonable foreseeable future actions would result in no noticeable overall changes to the affected environment. Grazing under the proposed permit renewal would aid in either making progress toward achievement or maintaining achievement of the rangeland health Standards, with the understanding that adjustments to grazing management would occur when any of the Standards are not being achieved.

No cumulative impacts of concern are anticipated as a result of the proposed action in combination with any other existing or planned activity.

5.0 Proposed Mitigation and Monitoring

5.1 Proposed Mitigation

Outlined design features incorporated into the proposed action are sufficient. No additional mitigation is proposed based on the analysis of environmental consequences.

5.2 Proposed Monitoring

Appropriate monitoring has been included as part of the Proposed Action. No additional monitoring is proposed as a result of the impact analysis.

6.0 Consultation and Coordination

6.1 List of Preparers - BLM Resource Specialists

Domenic A. Bolognani	Rangeland Management Specialist/Project Lead
Chris Mayer	Supervisory Rangeland Management Specialist
Andrew Daniels	Wildlife, Special Status Species, Migratory Birds
Mark D'Aversa	Soil, Water, Wetlands and Riparian, Floodplains
Mindy Seal	Noxious and Invasive, Non-native Species
Sheri Wysong	Planning and Environmental Coordinator
Ken Humphrey	Cultural Resources
Elvis Wall	Native American Cultural Concerns
Melanie Peterson	Hazardous & Solid Waste/Safety
Cameron Boyce	Recreation, Visual Resources

6.2 Persons, Groups or Agencies Consulted

This Preliminary EA is being sent to the Interested Publics included on the annual Range Actions Interested Public Mailing List.

Public Notice of Availability

On January 8, 2010, a letter was sent to local Native American tribes requesting comments, regarding the permit renewal process for Authorization #2705089, by February 8, 2010.

On April 7, 2010, the Nevada Department of Wildlife was sent a copy of the proposed action via ftp.

On April 19, 2010, the permittee, for Authorization #2705089, was sent a letter informing them of the proposed term permit renewal process scheduled for their allotment.

On December 22, 2009, the Ely BLM annual CCC letter was mailed which notified interested publics of the livestock grazing term permit renewals scheduled for 2010. The letter included Authorization #2705089 on the Crystal Springs Allotment.

On April 26, 2010, the proposal to fully process the term permit, for Authorization 2705089, was posted on the Ely BLM internet site (http://www.blm.gov/nv/st/en/fo/ely_field_office.html).

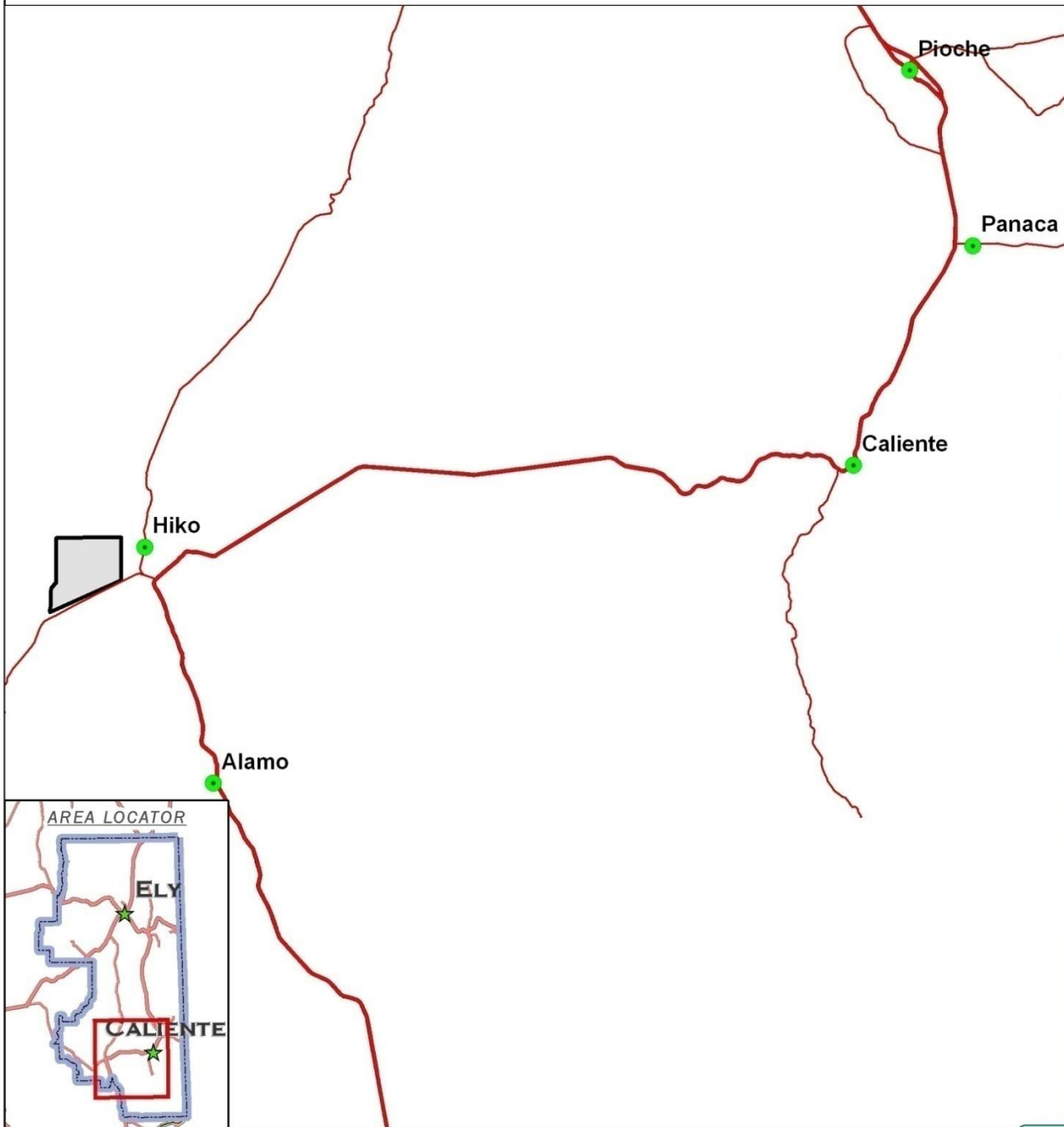
References

- Floyd T, Elphick CS, Chisholm G, Mack K, Elston RG, Ammon EM, and Boone JD. 2007. Atlas of the Breeding Birds of Nevada. Reno: University of Nevada Press.
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- USDOJ, Bureau of Land Management. 2008. National Environmental Policy Act. Handbook H-1790-1.
- USDOJ, Bureau of Land Management. 1994. Guidelines for assessing and documenting cumulative impacts. WO-IB-94-310.
- USDI - BLM. 1997. Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area.

APPENDIX I
(EA)

MAP(S)

LOCATION OF THE CRYSTAL SPRINGS ALLOTMENT (#21025)
WITH RESPECT TO SURROUNDING TOWNS.



Ely District Office



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Caliente Field Office
Range Staff on 4/15/2010

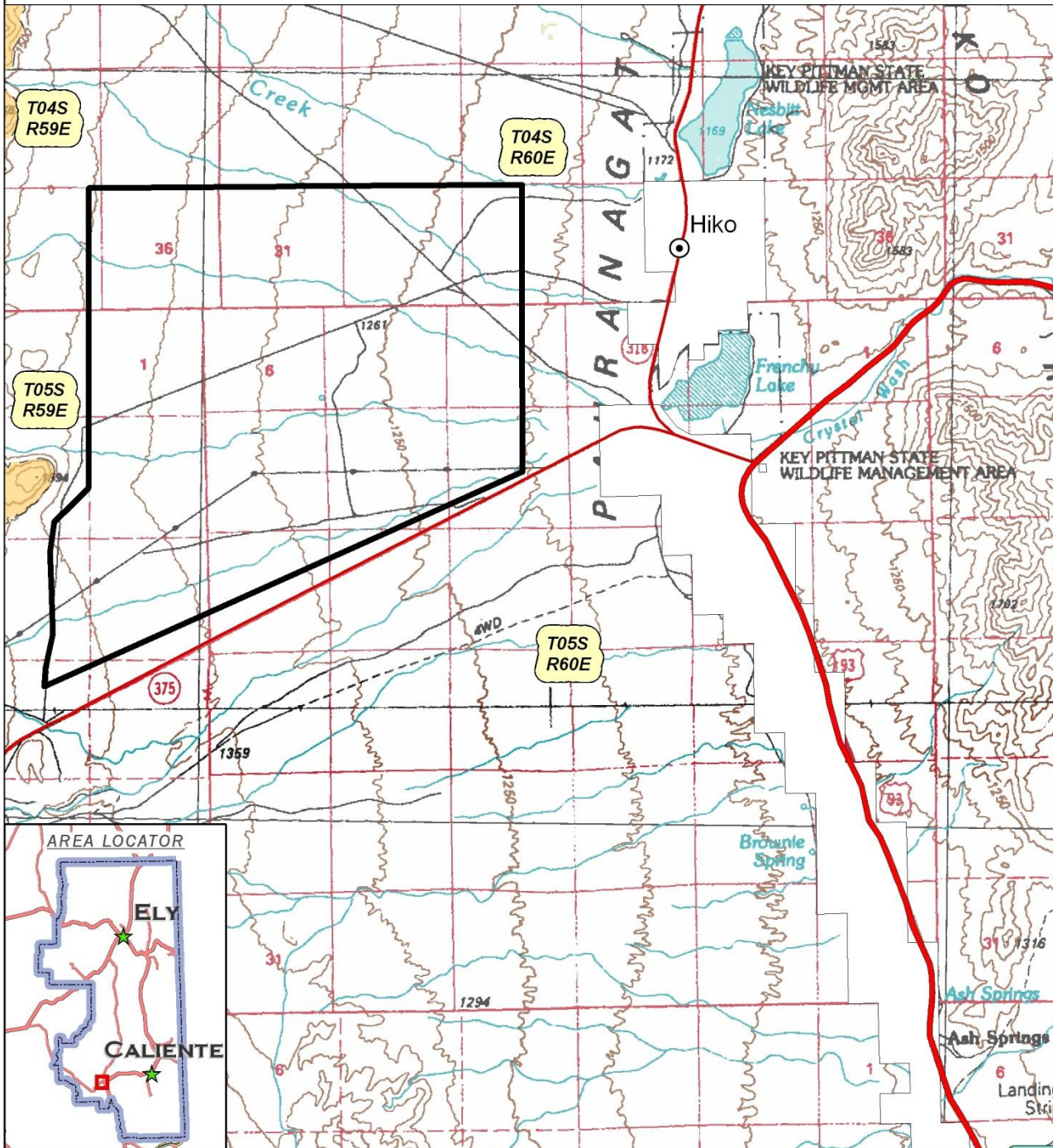
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**LEGEND**

- Crystal Springs Allotment
- Towns

CRYSTAL SPRINGS ALLOTMENT (#21025)

BLM



Ely District Office



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Caliente Field Office Range Staff on 4/15/2010



LEGEND

- BLM Wilderness
- Crystal Springs Allotment
- Private Lands

APPENDIX II
(EA)

STANDARDS DETERMINATION DOCUMENT

STANDARDS DETERMINATION DOCUMENT

Permit Renewal for Authorizations #2703530 and #2703531
on the

Crystal Springs Allotment (#21025)

(DOI-BLM-NV-L030-2010-0038 EA)

Standards and Guidelines Assessment

The Mojave-Southern Great Basin Standards and Guidelines for grazing administration were developed by the Mojave-Southern Great Basin Resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997.

Standards of rangeland health are expressions of physical and biological conditions required for sustaining rangelands for multiple uses. Guidelines point to management actions related to livestock grazing for achieving the Standards. Guidelines are options that move rangeland conditions toward the multiple use Standards. Guidelines are based on science, best rangeland management practices and public input. Therefore, determination of rangeland health is based upon conformance with these standards.

This Standards Determination document evaluates and assesses livestock grazing management and achievement of the Standards and Guidelines for the Crystal Springs Allotment in the Ely District BLM. It does not evaluate or assess the Standards or Guidelines for Wild Horses and Burros. Publications used in assessing and determining achievement of the Standards include: Ely Record of Decision and Approved Resource Management Plan (RMP) (August 2008); Sampling Vegetation Attributes; National Range and Pasture Handbook published by the Natural Resources Conservation Service (NRCS); Nevada Rangeland Monitoring Handbook; Utilization Studies and Residual Measurements; Nevada Plant List; and Major Land Resource Area (MLRA 29 and MLRA 30) Rangeland Ecological Site Descriptions. A complete list of references is included at the end of this document. These documents are available for public review at the Caliente Field Office during business hours.

The Crystal Springs Allotment encompasses approximately 7,596 acres. This land based allotment, having only one permittee, is located within Lincoln County in the south-central portion of the Ely District BLM, approximately 45 miles west of Caliente, Nevada; and approximately one mile west of Hiko, Nevada (Appendix A, Map #1). It is located within the White River South Watershed (#160C). Elevations range from approximately 4,600 feet near the west boundary of the allotment to approximately 4,000 feet near the eastern boundary.

Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA), Wilderness or Wilderness Study Area or within desert tortoise habitat. There are no known riparian areas located within the allotment.

There is one Key Area (KA-1) and one permanent watering location on the Crystal Springs Allotment (Appendix A, Map #2). Cover data was obtained at the Key Area in May 2009. Utilization data was obtained for the 2008 and 2009 Grazing Years.

Table 1 in Appendix B displays grazing use on the allotment as AUMs Licensed and Percent of Active Use by Grazing Year (3/1 – 2/28) from March 1, 1995 through February 28, 2010 (15 years). The table also shows the Total Active Use and Season of Use for the allotment. During approximately 10 out of the last 15 grazing years of said time period, grazing use on the allotment never exceeded 75% of the Total Active Use (437 AUMs) with a 15-year average use of 177 AUMs (62% of Total Active Use).

As Table 1 in Appendix B further indicates, the history of licensed annual use on the allotment during 13 out of the past 15 years has frequently been significantly below the Total Active AUMs indicated in the current Term Grazing Permit. Consequently, the stocking rate formula (BLM Technical Reference 4400-7, Appendix 2, pages 54-56) was used to determine if grazing at full capacity (100% of Total Active Use) could potentially result in grazing use which would exceed the moderate use level. Appendix C displays stocking rate calculations for the allotment, based on utilization data collected at KA-1 during 2008 and 2009, using a 45% desirable utilization level. The stocking rate calculations indicated that this would not occur.

Table 2 in Appendix B shows a comparison of cover data, collected at Key Area 1 on the Crystal Springs Allotment, to Potential Natural Community (PNC) cover values for the applicable range site.

The Key Species Method was used in determining grazing use according to the Nevada Rangeland Monitoring Handbook (2006). This method is based on percent utilization of current year's growth, by weight. Cover data were obtained using the Line Intercept Method. The method is described in Sampling Vegetation Attributes (USDI-BLM et. al., 1996).

The following is an analysis of monitoring data which were used to evaluate applied management practices during the evaluation period. These data were used in determining if such management practices yielded results that were in conformance with the Mojave - Southern Great Basin Standards.

STANDARD 1. SOILS:

“Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle.”

Soil indicators:

- Ground cover (vegetation, litter, rock, bare ground);
- Surfaces (e.g., biological crusts, pavement); and
- Compaction/infiltration.

Riparian soil indicators:

- Stream bank stability.

All of the above upland indicators have been deemed appropriate to the potential of the ecological site.

Determination:

☒ **Achieving the Standard**

- ☐ Not achieving the Standard, but making significant progress towards meeting the Standard.
- ☐ Not achieving the Standard, not making significant progress towards meeting the Standard.

Causal Factors:

- ☐ Livestock are a contributing factor to not meeting the standard.
- ☐ Livestock are not a contributing factor to not meeting the standard.
- ☐ Failure to meet the standard is related to other issues or conditions.

Guidelines Conformance:

☒ **In conformance with the Guidelines**

- ☐ Not in conformance with the Guidelines

According to Soil Mapping Units and corresponding Rangeland Ecological Site Descriptions as determined by the NRCS, combined with professional field observations, KA-1 was determined to be located in a Shallow Droughty Loam 5-8" P.Z. (029XY031NV – Spiny Hopsage (*Grayia spinosa*) / Spiny Menodora (*Menodora spinescens*) - Indian Ricegrass (*Achnatherum hymenoides*) (Figure 1).

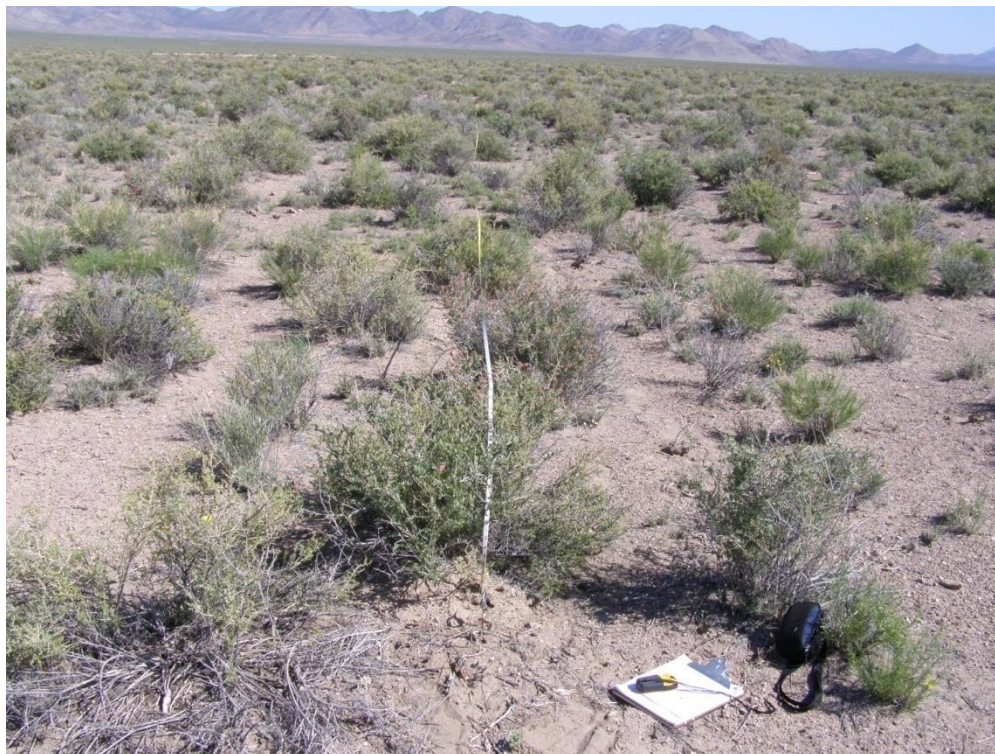


Figure 1. Overview of Study Site KA-1 showing existing vegetation.

The soils of this site are shallow to moderately deep and are well drained. These soils have formed in mixed alluvium from volcanic rocks with minor amounts of limestone. Some soils may have a restrictive layer below the main plant rooting depth. Runoff is slow and permeability is moderately slow. Available water capacity is low to very low.

According to the site description, potential ground cover (basal and crown) should range between 20 – 30%.

At KA-1, utilization was in the Light Use category (24.5%) for the 2008 Grazing Year and Slight Use Category (15%) during the 2009 Grazing Year.

Conclusion: *Standard 1 Achieved*

Grazing use data indicates that overgrazing is not an issue.

Ground cover, composed of various shrubs and grasses, at KA-1 was approximately 20%. This is within the range given in the applicable Ecological Rangeland Site Description.

Field observations on the allotment have substantiated that soils were stable, native plants were not pedestalled and there were no signs of soil compaction. This indicates that the allotment has sufficient vegetative cover to maintain stability and to resist accelerated erosion, maintain soil productivity and, thus, sustain the hydrologic cycle. It further indicates that there is minimal wind and/or water erosion of topsoil, and apparent appropriate infiltration of water from snowmelt and rainfall. In addition, the gravelly/stony soil surface characteristics found in other soil mapping units comprising large portions of the allotment further contribute to soil protection. Biological crusts were also noted in some areas within the allotment.

Collectively, slight to light grazing intensities and sufficient live vegetative cover infers litter production that further adds to increased soil protection and stability. Field observations have substantiated various amounts of scattered litter throughout the allotment.

STANDARD 2 ECOSYSTEM COMPONENTS:

"Watersheds should possess the necessary ecological components to achieve state water quality criteria, maintain ecological processes, and sustain appropriate uses."

"Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and cover, capture sediment, and capture, retain, and safely release water (watershed function)."

Upland indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to the potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:
 - Width/Depth ratio;
 - Channel roughness;
 - Sinuosity of stream channel;
 - Bank stability;
 - Vegetative cover (amount, spacing, life form); and
 - Other cover (large woody debris, rock).
- Natural springs, seeps, and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to the site characteristics.

Water quality indicators:

- Chemical, physical and biological constituents do not exceed the state water quality standards.

Determination:

X Meeting the Standard

- ☐ Not meeting the Standard, but making significant progress towards meeting the Standard.
- ☐ Not meeting the Standard, not making significant progress towards meeting the Standard.

Causal Factors:

- ☐ Livestock are a contributing factor to not meeting the standard.
- ☐ Livestock are a contributing factor to not meeting the standard.
- ☐ Failure to meet the standard is related to other issues or conditions.

Guidelines Conformance:

X In conformance with the Guidelines

- ☐ Not in conformance with the Guidelines

Conclusion: *Standard 2*

Upland Ecosystem Components - *Achieved*

Riparian Habitat Components – *Not Applicable*

Uplands

Data and field observations relating to soils, hydrologic processes, canopy and ground cover (including litter and rock) were discussed in Standard I which was achieved. Observed live vegetation species are discussed in Standard 3.

The allotment supports a healthy, diverse variety of native perennial grasses and shrubs with a small component of annual forbs; all of which provide soils with the appropriate inputs of organic matter to become incorporated into the surface soil layer. Summarily, all of this infers that ecological processes are adequate for the existing vegetative communities, while sustaining appropriated uses.

Riparian

There are no known riparian areas found on public lands within the Crystal Springs Allotment.

STANDARD 3 HABITAT AND BIOTA:

"Habitats and watersheds should sustain a level of biodiversity appropriate for the area and conducive to appropriate uses. Habitats of special status species should be able to sustain viable populations of those species."

Habitat indicators:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, and age classes);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Wildlife indicators:

- Escape terrain;
- Relative abundance;
- Composition;
- Distribution;
- Nutritional value; and
- Edge-patch snags.

The above indicators shall be applied to the potential of the ecological site.

Determination:

X Achieving the Standard

- ☐ Not achieving the Standard, but making significant progress towards meeting the Standard.
- ☐ Not achieving the Standard, not making significant progress towards meeting the Standard.

Causal Factors:

- ☐ Livestock are a contributing factor to not meeting the standard.
- ☐ Livestock are not a contributing factor to not meeting the standard.
- ☐ Failure to meet the standard is related to other issues or conditions.

Guidelines:

- ☒ **In conformance with the Guidelines**
- ☐ Not in conformance with the Guidelines

General field observations revealed that, at least, fourteen perennial species of shrubs; five perennial species of grasses; a variety of perennial forb species; and five different species of cacti, which includes an occasional banana yucca and Joshua tree, exist in a patchy network within the allotment. The following table displays these observations:

Shrubs	Grasses	Forbs	Cacti
Spiny Hopsage (<i>Grayia Spinosa</i>)	Indian ricegrass (<i>Achnatherum hymenoides</i>)	Four O'clock (<i>Mirabilis spp.</i>)	Barrel cactus (<i>Ferocactus spp.</i>)
Anderson's Wolfberry (<i>Lycium andersonii</i>)	Galleta (<i>Pleuraphis jamesii</i>)	Desert Globemallow (<i>Sphaeralcea ambigua</i>)	Cholla (<i>Opuntia spp.</i>)
Winterfat (<i>Krascheninnikovia lanata</i>)	Big Galleta (<i>Pleuraphis rigida</i>)	Larkspur (<i>Delphinium spp.</i>)	Prickly Pear (<i>Opuntia spp.</i>)
Nevada ephedra (<i>Ephedra nevadensis</i>)	Squirreltail (<i>Elymus elymoides</i>)	Gilia (<i>Gilia</i>)	Banana Yucca (<i>Yucca baccata</i>)
Snakeweed (<i>Gutierrezia spp.</i>)	Fluffgrass (low whollygrass) (<i>Dasyochloa pulchella</i>)	Chicory (<i>Cichorium spp.</i>)	Joshua Tree (<i>Yucca brevifolia</i>)
Shockley's goldenhead (<i>Acamptopappus shockleyi</i>)			
Fremonts Dalea (<i>Psoralea fremontii</i>)			
Spiny Menodora (<i>Menodora spinescens</i>)			
Bud Sagebrush (<i>Picrothamnus desertorum</i>)			
Blackbrush (<i>Coleogyne ramosissima</i>)			
Horsebrush (<i>Tetradymia</i>)			
Shadscale (<i>Atriplex confertifolia</i>)			
Douglas Rabbitbrush (<i>Chrysothamnus viscidiflorus</i>)			
Virgin River Encelia (<i>Encelia virginensis</i>)			

Conclusion: Standard 3 Achieved

Habitat indicators for Standard 3 refer to vegetative composition, structure, distribution, productivity, and nutritional value. Vegetative conditions on the Crystal Springs Allotment suitably reflect these attributes.

Field observations revealed a diversity of various vegetation types that are distributed in a patchy nature across the landscape within the allotment. Observations also indicate that species composition, for each occurring range site, is appropriate throughout the allotment. This indicates productive and functional plant communities with suitable structure and distribution.

Spiny hopsage, winterfat, Nevada ephedra, spiny menodora, bud sagebrush, shadscale, Indian ricegrass, galleta and squirreltail are known to be nutritious, palatable plant species for livestock

and/or wildlife. Numerous forb species were also noted on the allotment. This serves to provide a variable and productive forage base; and in combination with the aforementioned characteristics of the landscape, is capable of supporting a level of biodiversity appropriate for the area while being conducive to appropriate uses.

Moderate to good species diversity of perennial plant species, and low levels of grazing use indicate that there is sufficient ground cover (in the form of live vegetation and litter) to protect soils and perpetuate vegetative productivity while ensuring appropriate vegetative structure and diversity.

In concert, the various vegetation habitats within the allotment provide escape terrain and thermal cover, while short and tall statured woody species create perching/nesting habitat for the avian community. These habitats also offer a desirable environment for a variety of small mammals, reptiles and assorted numerous songbirds.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS?

All applicable Standards are being achieved.

PART 3. GUIDELINE CONFORMANCE REVIEW and SUMMARY

GUIDELINES for *SOILS* (Standard 1):

See Conclusion for Standard 1, and Part 2 above.

Current livestock grazing management practices conform to Guideline 1.1. The remaining three Guidelines are not applicable to the assessment area at this time.

Upland management practices are maintained and promoted through adequate vegetative ground cover.

GUIDELINES for *ECOSYSTEM COMPONENTS* (Standard 2):

See Conclusion for Standard 2, and Part 2 above.

Uplands

Current livestock grazing management practices conform to Guidelines 2.3 and 2.4. The remaining six Guidelines are not applicable to the assessment area at this time.

Riparian

There are no known riparian areas found on public lands within the Crystal Springs Allotment. Therefore, Standard 2 and associated Guidelines, regarding the riparian portion of this standard, are not applicable.

GUIDELINES for *HABITAT AND BIOTA* (Standard 3):

See Conclusion for Standard 3, and Part 2 above.

Current livestock grazing management practices conform to Guidelines 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6. The remaining three Guidelines are not applicable to the assessment area at this time.

PART 4. MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

1. Maintain the full Active Use of the current term permits. Stocking rate calculations (Appendix C) indicate that grazing 100% of the current Total Active Use (437 AUMs) would not result in grazing use which would exceed the moderate use level (45%). However, the authorization of 437 AUMs, during any given year, would be based on annual forage availability and the terms and conditions and the Best Management Practices included in the new term permits.
2. Change the Season of Use from 8/1 – 5/31 to 10/1 – 3/31, so that grazing neither occurs during most of the critical growing period for cool season plants nor during a portion of the critical growing period for warm season plants. This would favor plant growth and seed set requirements in both, warm season and cool season grasses. It would also allow the potential for grazed cool season plants, which may have begun some spring growth, to continue growth which would aid in allowing such plants: to develop above ground biomass to protect soils and provide desirable perennial cover for wildlife; to contribute to litter cover; and to continue to develop root masses which would lend itself to improved carbohydrate storage for vigor and reproduction.
3. Incorporate the following Best Management Practices into the new Term Grazing Permits:
 - a. Establish the following Allowable use Level for grasses, forbs and shrubs within the Crystal Springs Allotment during the authorized grazing use period. These utilization objectives will aid in maintaining the Standards:
 - Utilization on grasses, forbs and shrubs shall not exceed 45% of current year's growth during the established season of use.
 - b. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.
 - c. Salt and/or mineral supplements for livestock would be located no closer than 3/4 mile from existing water sources

REFERENCES

BLM – August 2008. Ely Record of Decision and Approved Resource Management Plan (RMP)

USDA – USFS, NRCS, USDI - BLM, Cooperative Extension Service. 1996. Sampling Vegetative Attributes.

USDA – NRCS. 1997. National Range and Pasture Handbook.

USDA – USFS, USDA – NRCS, USDI – BLM, Univ. of Nevada Cooperative Extension. 2006. Nevada Rangeland Monitoring Handbook.

USDA – USFS, USDA – NRCS, USDI – BLM, Utah Cooperative Extension Service. 1999. Utilization Studies and Residual Measurements; Interagency Technical Reference 1734 – 3.

USDA – NRCS. 1998. Nevada Plant List.

USDA – NRCS. 2003. Major Land Resource Area 29, Southern Nevada Basin and Range Ecological Site Descriptions.

USDA – NRCS. 2002. Major Land Resource Area 30, Southern Nevada Basin and Range Ecological Site Descriptions.

Specialists:

Mark D'Aversa – Soil, Water & Air Quality, Floodplains &
Riparian

Date

Andrew Daniels – Wildlife Biologist

Date

Mindy Seal – Noxious and Invasive Weeds

Date

Prepared by:

Domenic A. Bolognani – Rangeland Management Specialist

Date

Reviewed by:

Chris Mayer – Supervisory Rangeland Management Specialist

Date

I concur:

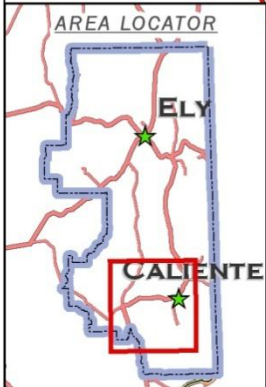
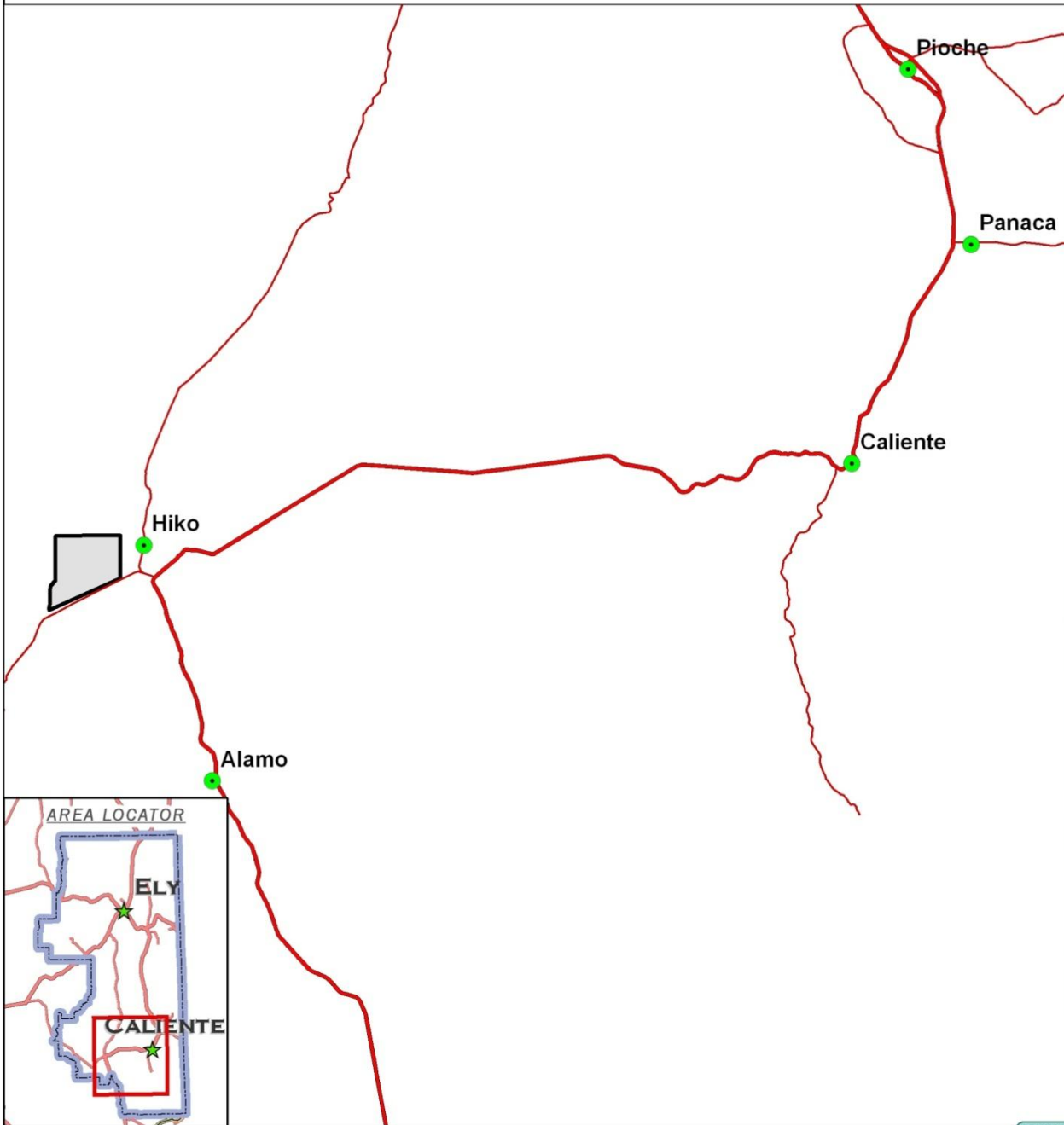
Victoria Barr – Caliente Field Manager

Date

APPENDIX A
(Standards Determination Document)

MAPS

LOCATION OF THE CRYSTAL SPRINGS ALLOTMENT (#21025)
WITH RESPECT TO SURROUNDING TOWNS.




No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Caliente Field Office
Range Staff on 4/15/2010

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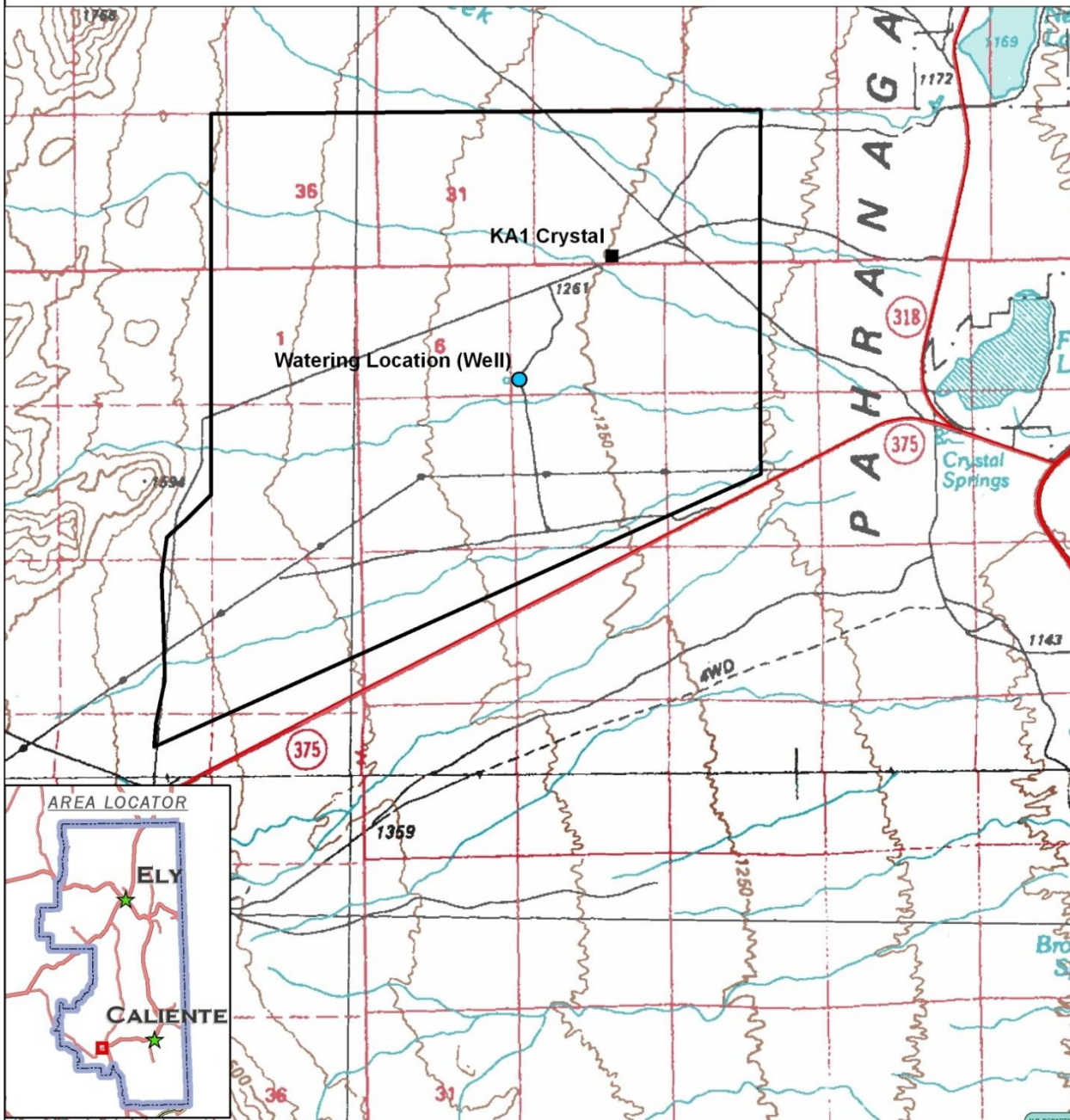


LEGEND

-  Crystal Springs Allotment
-  Towns



Location of the Key Area (KA-1) and the Permanent Watering Location (Well) on the Crystal Springs Allotment (#21025).



Ely District Office



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Caliente Field Office
Range Staff on 4/15/2010

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LEGEND

- Key Area on Crystal Springs Allotment
- Watering Location (Well)
- Crystal Springs Allotment

APPENDIX B

(Standards Determination Document)

TABLES

Table 1. Annual Livestock Grazing Use for Permit Number 2705089 on the Crystal Springs Allotment - as AUMs Licensed and Percent of Active Use by Grazing Year - from March 1, 1995 through February 28, 2010 (15 years).

Allotment/Active Use/Season of Use	Grazing Year (3/1 – 2/28)	AUMs Licensed	% of Total Active Use
<p style="text-align: center;">Crystal Springs Allotment (Total Active Use = 437 AUMs)</p> <p style="text-align: center;">Season of Use = 8/1 – 5/31</p>	1995	449	102%
	1996	210	48%
	1997	233	53%
	1998	*500	114%
	1999	172	39%
	2000	266	61%
	2001	338	77%
	2002	59	14%
	2003	144	33%
	2004	352	81%
	2005	391	89%
	2006	302	69%
	2007	218	50%
	2008	237	54%
	2009	169	39%
15 Year Average		176.53	0.62%

* Sixty-three AUMs were issued as Temporary Non Use (TNR) during this grazing year, because of forage abundance.

Table 2. Comparison of Cover Data, Collected at Key Area 1 on the Crystal Springs Allotment, to Potential Natural Community (PNC) Cover Values for the Applicable Range Site.

Key Area	Range Site	Associated Vegetation Type	% Cover Collected at Key Area	% Cover at PNC In Applicable Rangeland Site Description
KA-1	* 029XB031NV	GRSP-MESP2 / ACHY	20%	20% – 30%

* Based upon on-the-ground reconnaissance.

APPENDIX C

(Standards Determination Document)

STOCKING RATE CALCULATIONS

1. The desired stocking level for the Crystal Springs Allotment was determined using the following formula (BLM Technical Reference 4400-7, Appendix 2, pages 54-56)

$$\frac{\text{Actual Use (AUMs)}}{\% \text{ Utilization}} = \frac{\text{Desired Actual Use (AUMs)}}{\text{Desired \% Utilization}}$$

The stocking Rate formula was applied as a tool to evaluate the potential authorization of full stocking levels for both permits (100% of combined Active Use or 437 AUMs) for the allotment as addressed in the proposed action.

Application of this formula was based on the licensed use (actual use AUMS) and coinciding utilization data for the 2008 and 2009 Grazing Years using a desired utilization level of 45%.

Table 3. Desired Stocking Rate Based on Grazing Use Which Occurred During 2008 and 2009 Using the Desired Utilization Level of 45%.

Grazing Year	Actual Use (AUMs)	Desired % Utilization (decimal form)	% Utilization Reading at KA (decimal form)	Desired AUMs
2008	237	.45	.245	435
2009	169	.45	.15	507
AVERAGE				471

Results

The Desired Active Use resulting from this calculation supports authorizing 100% of the combined Total Active Use (437 AUMs) of both current term permits. However, the authorization of 437 AUMs, during any given year, would be based on annual forage availability; and the terms and conditions and the Best Management Practices included in the new term permit which, in part, address utilization levels, periods of use and placement of salt and mineral supplements.

It is anticipated that authorizing full AUMs, with these terms and conditions, would maintain achievement of the standards.

APPENDIX III

(EA)

STANDARD TERMS AND CONDITIONS

1. Livestock numbers identified in the term grazing permit are a function of seasons of use and permitted use for each allotment. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
4. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.
5. Grazing use will be in accordance with the great basin area standards and guidelines for grazing administration. The Standards and Guidelines have been developed by the respective Resource Advisory Council and approved by the Secretary Of The Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.
6. If future monitoring data indicates that Standards and Guidelines for Grazing Administration are not being met, the permit will be re-issued subject to revised terms and conditions.
7. The permittee must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of any hazardous or solid wastes as defined in 40 CFR Part 261.
8. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.
9. When necessary, control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.

APPENDIX IV
(EA)

WEED RISK ASSESSMENT

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Authorizations #2703530 and #2703531

Crystal Springs Allotment

On July 7, 2010 a Noxious & Invasive Weed Risk Assessment was completed on the Crystal Springs Allotment in Lincoln County, Nevada in preparation for the permit renewal process scheduled during 2010.

The Bureau of Land Management (BLM) Caliente Field Office proposes to fully process and issue new term grazing permits for Authorizations #2703530 and #2703531 on the Crystal Springs Allotment (#21025).

The Proposed Action would change the Season of Use from 8/1 – 5/31 to 10/1 – 3/31, so that grazing neither occurs during most of the critical growing period for cool season plants nor during a portion of the critical growing period for warm season plants. This would favor plant growth and seed set requirements in both, warm season and cool season grasses. It would also allow the potential for grazed cool season plants, which may have begun some spring growth, to continue growth which would aid in allowing such plants: to develop above ground biomass to protect soils and provide desirable perennial cover for wildlife; to contribute to litter cover; and to continue to develop root masses which would lend itself to improved carbohydrate storage for vigor and reproduction.

Table 2.1.2-1. Proposed Term Grazing Permit for Authorization #2703530 on the Crystal Springs Allotment.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number	* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Crystal Springs	21025	48	C	10/01	3/31	100	292	0	292

* This number is approximate

** This is for billing purposes only

Table 2.1.2-2. Proposed Term Grazing Permit for Authorization #2703531 on the Crystal Springs Allotment.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number	* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Crystal Springs	21025	24	C	10/01	3/31	100	145	0	145

* This number is approximate

** This is for billing purposes only

The following Best Management Practices would be added to the Term Grazing Permit:

1. Allowable Use Levels on current year's growth of upland vegetation (grasses, forbs and shrubs) within the Crystal Springs Allotment - during the authorized grazing use period - would not exceed 45%.
2. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.
3. Salt and/or mineral supplements for livestock would be located no closer than 3/4 mile from existing water sources.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. This area was last surveyed in 2007. Currently there are no noxious weeds documented within the allotment. The following species are found along roads and drainages leading to the allotment:

<i>Carduus nutans</i>	Musk thistle
<i>Lepidium draba</i>	Hoary cress
<i>Lepidium latifolium</i>	Tall whitetop
<i>Onopordum acanthium</i>	Scotch thistle
<i>Tamarix spp.</i>	Salt cedar

While not officially documented, the following non-native invasive weeds probably occur in or around the allotment: red brome (*Bromus rubens*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. Grazing can increase the populations of the invasive weeds already within the permitted areas and could aid in the introduction of weeds from surrounding areas. However the design features of the proposed action will help to prevent weeds from establishing or spreading.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (5) at the present time. If noxious weed infestations establish within the permitted area this could have an adverse impact those native plant communities however, the proposed action includes measures to increase native plants and to help prevent weeds from establishing. An increase of red brome could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (20). This indicates that the project can proceed as planned as long as the following measures are followed:

- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for feed or bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District Office.
- Prior to entering public lands, the BLM will provide information regarding noxious weed management and identification to the permit holders affiliated with the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- The range specialist for the allotment will include weed detection into project compliance inspection activities. If the spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.

- Grazing will be conducted in compliance with the Ely District BLM noxious weed schedules. The scheduled procedures can significantly and effectively reduce noxious weed spread or introduction into the project area.
- When necessary, control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.
- Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Program for treatment.

Reviewed by: /s/ *Mindy Seal*

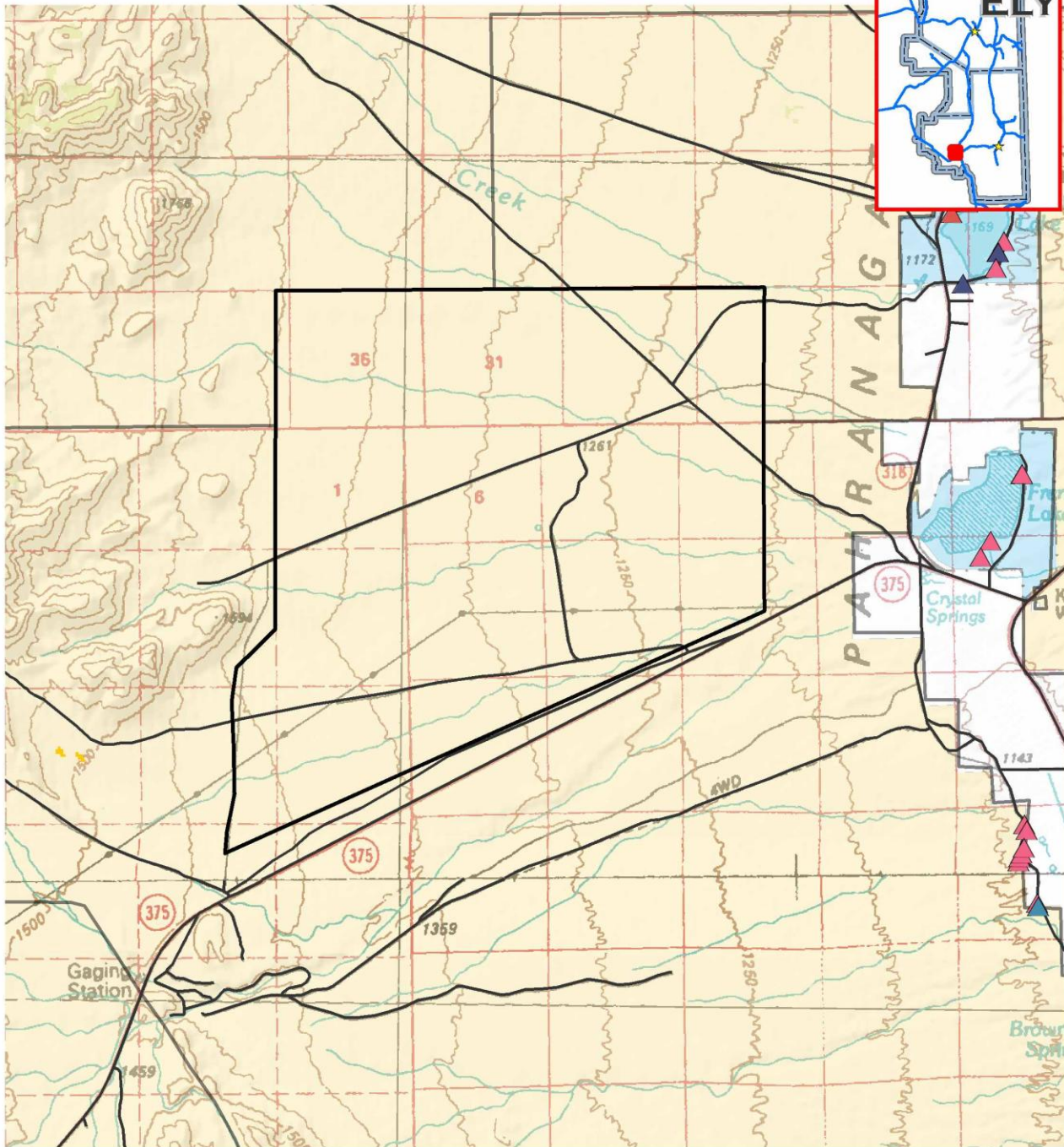
Mindy Seal
Natural Resource Specialist

7/7/2010

Date

CRYSTAL SPRINGS ALLOTMENT

BLM



Legend

Allotment Boundary	Ely Dist. Noxious Weed Inventory	Invasive Annual and Biennial Forbland
BLM	Commonname	Invasive Annual Grassland
FS	MUSK THISTLE	Invasive Perennial Grassland
State of Nevada	SALT CEDAR	
Private	SCOTCH THISTLE	
	TALL WHITETOP	
	WHITETOP/HOARY CRESS	

0 0.45 0.9 1.8 Mile



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: EYDO Weed Staff
7/7/2010

Ely District Office

APPENDIX V
(EA)

MIGRATORY BIRDS

Wildlife for Crystal Springs Term Permit Renewal

The project area is the Crystal Springs grazing allotment and reviews existing data as of 11/4/09.

NOTE: **Bolded** species names are birds considered BLM Sensitive Species in Nevada.

Wildlife species from the Ely RMP, Nevada Natural Heritage Data, and NDOW Diversity Data:

Phainopepla (*Phainopepla nitens*)

The following data reflect survey blocks and/or incidental sightings of bird species in or near the project area from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007) and NDOW Diversity Data. These data represent birds that were confirmed, probably, or possibly breeding within or near the project area. These data are not comprehensive, and additional species not listed here may be present. No survey blocks or incidental sightings occur within the project area. Survey blocks with similar vegetation as this area contained the following bird species:

Turkey Vulture (*Cathartes aura*)
Ash-throated Flycatcher (*Myiarchus cinerascens*)
Mourning Dove (*Zenaida macroura*)
Say's Phoebe (*Sayornis saya*)
Lazuli Bunting (*Passerina cyanea*)
Black-throated Sparrow (*Amphispiza bilineata*)
Rock Wren (*Salpinctes obsoletus*)
Brewer's Sparrow (*Spizella breweri*)
Brown-headed Cowbird (*Molothrus ater*)
Chipping Sparrow (*Spizella passerina*)
Common Raven (*Corvus corax*)
Gray Flycatcher (*Empidonax wrightii*)
Gambler's Quail (*Callipepla gambelii*)
Western Wood-Pewee (*Contopus sordidulus*)
Tree Swallow (*Tachycineta bicolor*)
Cactus Wren (*Campylorhynchus brunneicapillus*)
Canyon Wren (*Catherpes mexicanus*)
Blue-gray Gnatcatcher (*Poliophtila caerulea*)
Northern Mockingbird (*Mimus polyglottos*)
Le Conte's Thrasher (*Toxostoma lecontei*)
Bendire's Thrasher (*Toxostoma bendirei*)
Loggerheaded Shrike (*Lanius ludovicianus*)
Yellow Warbler (*Dendroica petechia*)
Scotts' Oriole (*Icterus parisorum*)
House Finch (*Carpodacus mexicanus*)

Works Cited

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